

WHAT IS CLAIMED IS:

1. A developing method for developing a latent
image formed on an image bearing member with developer
including toner and carrier contained in a developer
5 containing portion, comprising the steps of:

developing a first latent image for controlling a
replenishing amount of the developer to said developer
containing portion by a first developing electrical
field; and

10 developing a second latent image for controlling
gradation of an image by a second developing electrical
field;

and wherein

15 the first developing electrical field is different
from the second developing electrical field.

2. A developing method according to claim 1,
wherein a changed amount of density of a developed
image with respect to a changed amount of density of
20 the developer in said developer containing portion is
greater in formation of the first developing electrical
field than in formation of the second developing
electrical field.

25 3. A developing method according to claim 2,
wherein the first developing electrical field is
provided only when an alternating electrical field is

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formed.

4. A developing method according to claim 2 or 3,
wherein the second developing electrical field
alternately includes a period during which an
alternating electrical field is formed and a period
during which formation of the alternating electrical
field is stopped.

5. A developing method according to claim 1,
wherein the developing electrical field is an
alternating electrical field.

6. A developing method according to claim 1,
further comprising the step of detecting information
corresponding to the density of the developed image
obtained by developing the first latent image, and
wherein a replenished amount of the developer to said
developer containing portion is controlled on the basis
of the information.

7. A developing method according to claim 1,
further comprising the steps of detecting information
corresponding to the density of the developed image
obtained by developing the second latent image, and
controlling gradation of the image on the basis of the
information.

8. A developing method for developing a latent image formed on an image bearing member with developer including toner and carrier contained in a developer containing portion, comprising the steps of:

5 developing a first latent image for controlling a replenishing amount of the developer to said developer containing portion by a first developing electrical field; and

10 developing a second latent image for controlling gradation of an image by a second developing electrical field;

and wherein

15 a changed amount of density of a developed image with respect to a changed amount of density of the developer in said developer containing portion is greater in formation of the first developing electrical field than in formation of the second developing electrical field.

20 9. A developing method according to claim 8, wherein the first developing electrical field is provided only when an alternating electrical field is formed.

25 10. A developing method according to claim 8 or 9, wherein the second developing electrical field alternately includes a period during which an

alternating electrical field is formed and a period during which formation of the alternating electrical field is stopped.

5 11. A developing method according to claim 8, wherein the developing electrical field is an alternating electrical field.

10 12. A developing method according to claim 8, further comprising the step of detecting information corresponding to the density of the developed image obtained by developing the first latent image, and wherein a replenished amount of the developer to said developer containing portion is controlled on the basis
15 of the information.

20 13. A developing method according to claim 8, further comprising the steps of detecting information corresponding to the density of the developed image obtained by developing the second latent image, and controlling gradation of the image on the basis of the information.

25 14. A developing apparatus comprising:
a developer containing portion for containing developer including toner and carrier; and
a developer carrying member for carrying the

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developer;

and wherein

when a latent image is formed on an image bearing member, a developing electrical field is formed between

5 said image bearing member and said developer carrying member;

and further wherein

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10 a first developing electrical field by which a first latent image for controlling a replenishing amount of the developer to said developer containing portion is developer is different from a second developing electrical field by which a first latent image for controlling gradation of an image.

15 15. A developing apparatus according to claim 14, wherein a changed amount of density of a developed image with respect to a changed amount of density of the developer in said developer containing portion is greater in formation of the second developing
20 electrical field than in formation of the first developing electrical field.

25 16. A developing apparatus according to claim 15, wherein the first developing electrical field is provided only when an alternating electrical field is formed.

17. A developing apparatus according to claim 15
or 16, wherein the second developing electrical field
alternately includes a period during which an
alternating electrical field is formed and a period
5 during which formation of the alternating electrical
field is stopped.

18. A developing apparatus according to claim 14,
wherein the developing electrical field is an
10 alternating electrical field.

19. A developing apparatus according to claim 14,
further comprising the step of detecting information
corresponding to the density of the developed image
15 obtained by developing the first latent image, and
wherein a replenished amount of the developer to said
developer containing portion is controlled on the basis
of the information.

20. A developing apparatus according to claim 14,
further comprising the steps of detecting information
corresponding to the density of the developed image
obtained by developing the second latent image, and
controlling gradation of the image on the basis of the
25 information.

21. A developing apparatus comprising:

a developer containing portion for containing
developer including toner and carrier; and

a developer carrying member for carrying the
developer;

5 and wherein

when a latent image is formed on an image bearing
member, a developing electrical field is formed between
said image bearing member and said developer carrying
member;

10 and further comprising

a mode in which a first latent image for
controlling a replenishing amount of the developer to
said developer containing portion is developed by a
first developing electrical field; and

15 a mode in which a second latent image for
controlling gradation of an image is developed by a
second developing electrical field;
and further wherein

20 a changed amount of density of a developed image
with respect to a changed amount of density of the
developer in said developer containing portion is
greater in formation of the first developing electrical
field than in formation of the second developing
electrical field.

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22. A developing apparatus according to claim 21,
wherein the first developing electrical field is

provided only when an alternating electrical field is formed.

23. A developing apparatus according to claim 21
5 or 22, wherein the second developing electrical field alternately includes a period during which an alternating electrical field is formed and a period during which formation of the alternating electrical field is stopped.

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24. A developing apparatus according to claim 21, wherein the developing electrical field is an alternating electrical field.

15 25. A developing apparatus according to claim 21, further comprising the step of detecting information corresponding to the density of the developed image obtained by developing the first latent image, and wherein a replenished amount of the developer to said
20 developer containing portion is controlled on the basis of the information.

26. A developing apparatus according to claim 21, further comprising the steps of detecting information
25 corresponding to the density of the developed image obtained by developing the second latent image, and controlling gradation of the image on the basis of the information.

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